

**THE FEDERAL FAMILY
EDUCATION LOAN PROGRAM:
*ALTERNATIVE INDICES
FOR DETERMINATION OF
LENDER RETURNS***

A Briefing Paper on Behalf of:

*American Bankers Association
Consumer Bankers Association
Education Finance Council
National Council of Higher Education Loan Programs
Sallie Mae*

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The American Bankers Association

The American Bankers Association brings together all categories of banking institutions to best represent the interests of this rapidly changing industry. Its membership—which includes community, regional and money center banks and holding companies, as well as savings associations, trust companies and savings banks—makes ABA the largest banking trade association in the country.

Consumer Bankers Association

The Consumer Bankers Association is the recognized voice on retail banking issues in the nation's capital. Member institutions are the leaders in consumer, auto, home equity and education finance, electronic retail delivery systems, privacy, fair lending, bank sales of investment products, small business services, and community development. CBA was founded in 1919 to provide a progressive voice in the retail banking industry. CBA members hold more than 900 bank and thrift charters with total assets of more than \$2.9 trillion.

Education Finance Council

The Education Finance Council represents state-based student loan secondary market organizations throughout the country which are dedicated to the single purpose of making sure students can get the money they need to go to college. These organizations were created by the states under the Authority of 1976 federal legislation. EFC members raise capital by selling taxable and tax-exempt bonds to investors and then financing student loans, usually acquiring them from banks, savings and loans and credit unions. EFC members assume long-term servicing and collection responsibilities and share the risk of defaults.

The National Council of Higher Education Loan Programs

The National Council of Higher Education Loan Programs represents a nationwide network of guaranty agencies, secondary markets, loan servicers, collectors, schools and others involved in the administration of the Federal Family Education Loan Program (FFELP). A core goal of the Council is to work with borrowers to avoid the consequences of defaulting on their student loans. NCHELP promotes student access and choice for postsecondary education and training and remains committed to program integrity and improvement through the use of new technology and standardization of forms and procedures.

Sallie Mae

Sallie Mae is the nation's largest source of funding and serving support for higher education loans for students and their parents. Sallie Mae was established in 1973 as a federally chartered, stockholder-owned company. In 1997, Sallie Mae was reorganized as SLM Holding Corporation, a private Delaware-chartered corporation.

The Federal Family Education Loan Program: Alternative Indices for Determination of Lender Returns

TABLE OF CONTENTS

Page

1	Overview
2	How Interest Rates are Set in the FFELP
4	The Basis Risk Inherent in the FFELP
6	Relationship of T-Bill Rates Compared to Lender Financing Costs
	Chart 1: 3-Month Libor Compared to 3-Month Commercial Paper & 91-Day T-Bill
	Chart 2: Historical TED Spread
	Chart 3: 91-Day Treasury Bill Issuance
10	The Market for Securities Based on T-Bill and LIBOR
	Chart 4: Student Loan ABS Issuance
12	Comparison of T-Bill Markets to LIBOR/CP Markets
	Table 1: Commercial Paper and 91-Day T-Bills Outstanding
	Table 2: Publicly Offered Floating Rate Debt
14	Alternative Indices and Federal Credit Policy
17	Summary
19	Appendix
	1: History of Stafford Student Rates and Lender Yield in the Student Loan Program
	2: Congressional Budget Office FFELP Profitability Analysis After-Tax Return to Lenders on Each \$1 of Loans Held
	3: Statistical Analysis to 91-Day T-Bills
23	Glossary

Overview

The Federal Family Education Loan Program (FFELP), one of the largest public/private partnerships, is a vital American asset. Since 1966, private lenders have provided more than \$240 billion to students and their families under the federal student loan program, making the pursuit of a post-secondary education an affordable reality. In the 1998-99 academic year an estimated six million students and their families will borrow \$35 billion under federal student loan programs, with two-thirds of that amount coming from FFELP lenders. Maintaining a healthy partnership with the private sector is critical to ensure that students, their families, and schools will continue to have full access to the array of innovative products and services currently provided by private sector FFELP participants.

The rate index used to determine lender returns on FFELP loans, based on the 91-day T-bill, is not sufficiently correlated to

lender funding rates to assure stability in the program under the new yield formula put in place in 1998. By switching to a market-based index and eliminating the unnecessary capital markets inefficiencies that accompany the legacy T-bill index, predictability and certainty in the student loan program can be enjoyed at no cost to students, schools, or taxpayers. The more stable and predictable matched funding associated with an efficient market-based index will encourage lenders to remain in the program and take a long-term view when considering investments to maintain and improve the infrastructure of this student loan program.

This paper examines the issues associated with basing FFELP lender yields on the 91-day Treasury bill, how the volatility of that rate relative to other indices affects lenders' financing costs, and reviews alternative indices for determining lender yields in the student loan program.

How Interest Rates Are Set in the FFELP

Last year's reauthorization of the Higher Education Act set the interest rate paid by students on Stafford student loans at the 91-day Treasury bill plus 2.3% when the student is in repayment. The student's interest rate on the loan while the student is in school, or in grace or deferment periods is the 91-day T-bill plus 1.7%.

Because of concerns that these rates were too low to maintain a viable private-sector based lending program, the 1998 reauthorization set the amount that lenders received on student loans at a level 50 basis points higher than the student rate. The new rate set for FFELP lenders is the 91-day Treasury bill rate plus 2.8% when the loan is in repayment and the 91-day T-bill plus 2.2% while the student is in school, grace or deferment. The federal government pays, in the form of a special allowance, any difference between the rate FFELP lenders earn and the amount the borrower is obligated to pay.

While the borrower's interest rate is set annually, the special allowance payments

are calculated and made quarterly. The amount the government pays the lender is equal to the average of the weekly auctions of the 91-day Treasury bills during the previous quarter plus 2.80%, minus the interest paid by the student. Therefore, the FFELP student loan asset has an interest rate that, in effect, provides the lender a yield based on the average of the weekly auctions of the 91-day T-bill.

This formula, basing the lender yield on the 91-day T-bill plus a statutory margin, was established in 1977. Prior to then, from 1969 to 1977, lenders received a special allowance that was determined quarterly by a committee composed of the Secretary of Health, Education, and Welfare, the Secretary of Treasury, and the Director of the Office of Management and Budget. Because of the great uncertainty of this system, the special allowance was changed in 1977 to a formula tied to the 91-day T-bill. Under this formula, the lenders received a quarterly payment equal to the average of the weekly auctions of the 91-day Treasury bills during the previous quarter

plus 3.50%, rounded to the nearest 0.125% minus the interest paid by the student.

The 91-day T-bill was not chosen as an index for the student loan program because of any preference for basing federal credit on Treasury securities or on any special match to private sector financing needs. A study of the special allowance formula by the National Commission on Student Financial Assistance stated that the calculation of the special allowance was changed to a formula based on the 91-day T-bill for several reasons:

- (1) over the long-run, the Treasury bills were the lowest yielding debt instruments;
- (2) the yield was determined by market forces; and
- (3) the rate was unambiguous and easily derived.¹

The special allowance formula has been modified during the past 22 years, primarily with a reduction to the margin over the 91-day T-bill received by the lenders, but the basic formula is still in place today. (Appendix 1 displays the history of the lender yield and student rates in the Stafford student loan program since 1969.) However, there has been a great change in

the market for student loans as well as the 91-day T-bill during that time.

In 1977, there was not a great deal of concern about the amount of private capital required for the student loan program. The annual loan volume was less than \$2 billion and the student loan market represented only about 2% of all consumer credit. Further, at that time, private capital funding costs were less of a concern since a major provider of student loan financing was Sallie Mae which, until 1982, borrowed a large portion of its debt from the Federal Financing Bank at 0.125% above the 91-day T-bill.

Since 1977, however, the market for FFELP student loans has changed substantially. The annual FFELP student loan volume has grown more than tenfold, to \$22 billion, and represents more than 9% of all consumer credit. With \$150 billion in outstanding student loans, the market has no participants whose financing sources are compatible with the 91-day T-bill. The changes to the student loan market make it essential to reevaluate the appropriateness of an index based on the 91-day T-bill and whether this index is the most efficient measure to attract private capital to support this important program.

¹National Commission on Student Financial Assistance, "Study of the Special Allowance Formula of the Guaranteed Student Loan Program," April 1983, Appendix B, page 3.

The Basis Risk Inherent in the FFELP

While student loans provide lenders income based on the weekly auctions of the 91-day T-bill, lenders cannot match that interest rate in their financing. Only the U.S. government, by definition, can borrow at this rate. Participants in the FFELP program, whether banks, thrifts, finance companies or secondary markets, generally finance their student loan holdings through deposits, private borrowings, and in the capital markets through issuance of commercial paper, medium-and long-term debt, and asset securitization. The interest rate paid on these borrowings is most often based on a composite of interest rates at which major global money center banks lend U.S. dollar-denominated deposits (Eurodollars) of specific maturities to other top tier international banks. This composite rate is referred to as LIBOR, or the London Interbank Offered Rate. Since the 1980's, LIBOR has become the predominant or benchmark index for short-term borrowers and investors both in the United States and globally.

This means that FFELP lenders' student loan portfolios are financed based on different interest rate indices than are used for calculating the yield on the loans. The risk that a lender's funding rates, such as LIBOR, will not move in tandem with changes in the 91-day T-bill rate earned on the student loan portfolio is called "basis risk." When the rate indices do not move in tandem and widen, as has occurred in the past year, the yield that lenders earn on student loans decreases substantially. Thus balancing this difference between market-based funding costs and legislated student loan yield is critical to ensuring a continued flow of private capital into the program.

Generally, student loan holders attempt to match the interest rate earned on student loans with the interest rate they pay on borrowings used to finance the loan portfolio. This strategy is referred to as "match funding." By adhering to match funding principles, prudent financial managers strive to ensure a predictable and consistent stream of income from their in-

stitutions' student loan portfolios, regardless of whether interest rates rise, fall, or remain unchanged.

However, because only the federal government borrows at the Treasury securities rate, using the 91-day T-bill as an index for student loans makes it very difficult to match fund student loan portfolios. While the rates on T-bills and LIBOR usually move in the same general direction, the difference between the rates can vary significantly. Since the student loan earns at a fixed 2.80% spread over the average T-bill, variations in the difference between T-bill rates and LIBOR rates can have a dramatic impact on lender returns. The difference between three-month LIBOR and 91-day T-bill rates is referred to as the Treasury/Eurodollar spread ("TED spread"). The volatility of the TED spread is representative of the basis risk that student loan holders face when attempting to match fund their portfolios.

Some lenders choose to bear the basis risk and absorb the differential when their bor-

rowing rates and student loan interest rates do not move in tandem. When the TED spread widens, as it did during the past year, these lenders find that income is reduced and certain types of loans become unprofitable. Other lenders or holders of student loans attempt to manage the risk by "hedging"—insuring themselves against the basis risk by finding a counterparty that is willing to bear the risk. As part of the hedge, the FFELP lender pays what is essentially an "insurance premium" to the counterparty to, in effect, lock-in a constant TED spread for a period of time, and thus a stable earnings stream from its student loan portfolio. The cost of this insurance increases the financing costs of the student loan portfolio. When the TED spread widens, these lenders find that the cost of hedging, and hence the cost of financing a student loan portfolio, substantially increases and, in general, becomes prohibitively expensive.

Relationship of T-Bill Rates Compared to Lender Financing Costs

The recent increase in volatility of the TED spread has heightened concerns about lenders' abilities to finance student loan portfolios. If lenders are unable to finance their student loan portfolios at reasonable costs, it brings into question their willingness to remain as providers of capital to students. In the past six months, lenders have faced recurring difficulties in financing their existing student loan portfolios, which are primarily based on the old formula of 91-day T-bill plus 3.10%.²

For student loans originated after July 1, 1998, which lenders are currently financing on their books and which earn interest at the new student loan formula of 91-day T-bill plus 2.80% (2.20% in-school), FFELP lenders and other student loan holders are

finding even less margin to manage the FFELP basis risk. The slim margin that lenders earn on student loans—about \$0.007 per year on each \$1 of loans³—provides little room to either to manage or absorb a widening spread between T-bill and private sector borrowing costs.

In general, the volatility of the relationship between government and private sector borrowing costs, as illustrated by the TED spread, is similar across all short-term, private sector capital markets instruments. While the relationship between LIBOR and the 91-day T-bill has shown considerable volatility, the volatility of LIBOR versus other commercial debt rates has sharply diminished in recent years. Chart 1 shows the three-month LIBOR compared to the

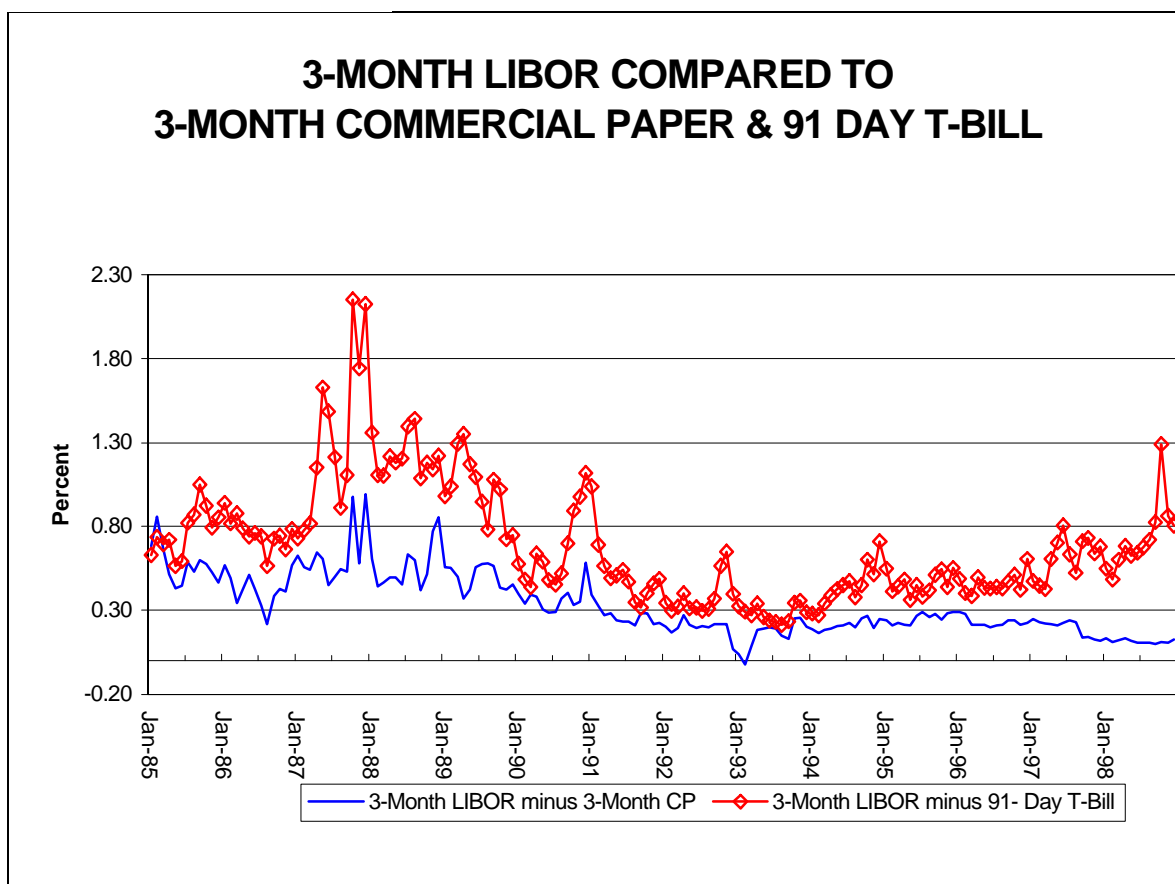
² Last year, the HEA reauthorization lowered the special allowance formula from the 91-day T-bill plus 3.1% to 2.8%. See Appendix 1 for history of special allowance formula changes.

³ This return calculation is derived from the March 1998 CBO report on FFELP profitability. See Appendix 2

91-day T-bill and 90-day commercial paper, demonstrating this reduced spread volatility between commercial paper and LIBOR. A primary reason for this is the improved credit quality of banks as a result of the Bank for International Settlements risk-based capital requirements that were established in 1989. The funding costs of banks, as displayed in the LIBOR index, are now highly correlated with the funding costs of other well-capitalized corporations.

nificant global event, such as the recent Russian economic turmoil or the Gulf War, generally results in a “flight to quality” by investors who move money to the safest investments they can find, such as short-term U.S. government debt obligations. Second, the supply of T-bills does not follow market demand but, rather, is dependent on the total amount of government borrowing, which is reduced today in light of the federal budget surplus.

Chart 1



There are several reasons why the yield on the 91-day T-bill does not track private sector borrowing costs. First, the demand for short-term Treasury securities can be influenced by factors external to the market for private capital. For example, a sig-

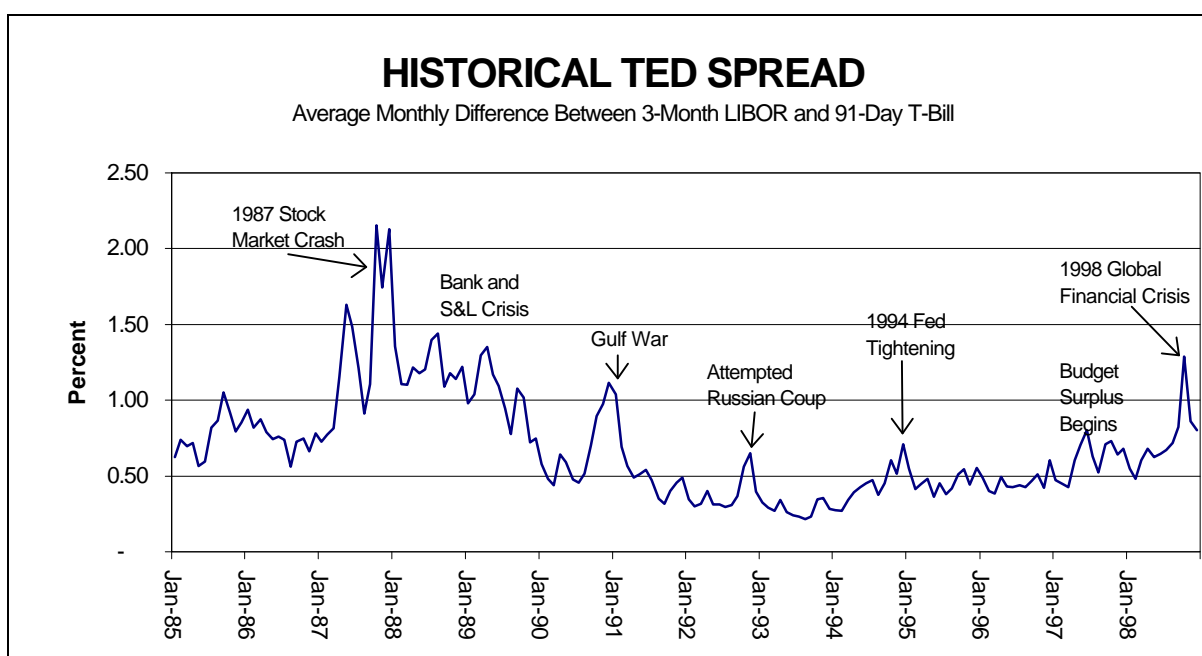
Chart 2 shows how the demand for the 91-day T-bill, and hence the TED spread, is influenced by global events. By tracking the average monthly TED spread, Chart 2 illustrates the widening of the TED spread when significant global events occur.

Even the period from 1995 to the present, a time of stable inflation and lower trending interest rates, has seen wild swings in the spread between T-bills and LIBOR. During this four-year period, the daily TED spread has averaged 0.57% but has had a high of 1.64% and a low of 0.28%. (Appendix 3 compares the historical relationship between the 91-day T-bill and other private capital market instruments on a daily basis).

their region—after bearing a significant loss, insurers are less willing to take the risk in the region. Even after the TED spread narrows, as has recently occurred, there are few counterparties willing to assume the basis risk. Therefore, at a minimum, the premium that would have to be paid is far above normal levels.

In practice, the market for hedging the basis risk associated with the TED spread is not a normal or liquid market. The market

Chart 2



Although global market effects on the demand for Treasury securities may be transitory, they can have a lasting negative impact on student loan lenders. The TED spread may decrease to more normal levels but market participants' long-lingering fears of renewed instability invariably requires an extra investment premium and, therefore, it is far more difficult to insure, or hedge, against the basis risk. This situation is similar to the difficulty that homeowners find when trying to purchase insurance after a hurricane or earthquake strikes

has little depth and, in periods following extreme volatility, may not exist at all for substantial hedging transactions.

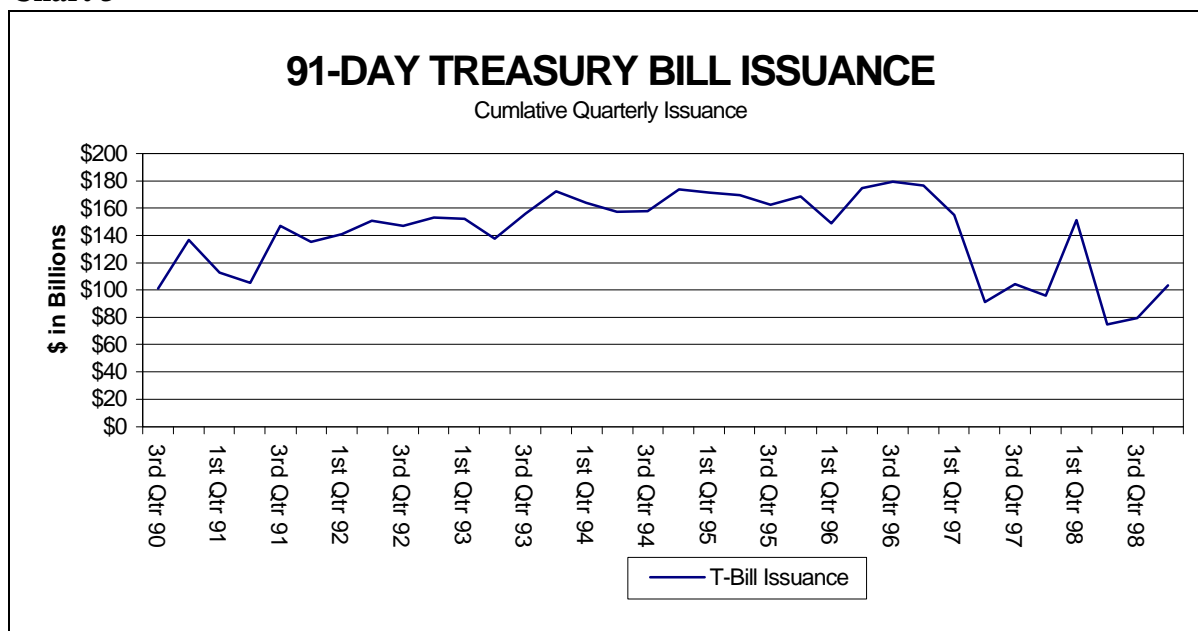
Another permanent effect on the pricing of Treasury securities is the balanced federal budget. In fiscal 1998, the federal government recorded its first balanced budget in 29 years, with a surplus of \$70 billion. It is expected that surpluses will remain at least at that level or increase over the next 10 years.⁴ The result of Federal surpluses is a decline in the amount of publicly issued

federal debt and a decline in the outstanding amount of marketable Treasury securities. As a consequence, the issuance of T-bills is likely to drop relative to historical levels. Already since January 1997, the amount of 91-day T-bills auctioned weekly by the U.S. Treasury has declined by more than 50%, from about \$12 billion to below \$6 billion by mid-year 1998. A recent *Washington Post* article, "Sweeping Changes in Store for U.S. Securities,"⁵ cited market experts who predicted a further acceleration in the drop in the supply of short-term Treasury securities.

Chart 3 gives a historical perspective on 91-day T-bill issuance since 1990. The sharp

drop-off in the quarterly issuance pattern beginning in 1997 is directly attributable to the balancing of the federal budget. The result of this decline in supply illustrates the classic economic theory of supply and demand. Decreasing the supply of T-bills drives up their price relative to other short-term debt instruments, which translates into lower rates paid by the government to investors. In other words, the continued decline in the supply of T-bills has created disproportionate downward pressure on their rates vis-a-vis other debt securities of comparable maturity and increased the spread between the 91-day T-bill and LIBOR or similar instruments.

Chart 3



⁴The Congressional Budget Office's January 1999 report, "Economic and Budget Outlook: Fiscal Years 2000-2004," projects that the federal public debt will decline by \$2.4 trillion between 1999 and 2009.

⁵ John M. Berry, "Sweeping Changes in Store for U.S. Securities," *The Washington Post*, December 23, 1998, page D1.

The Market for Securities Based on T-Bill and LIBOR

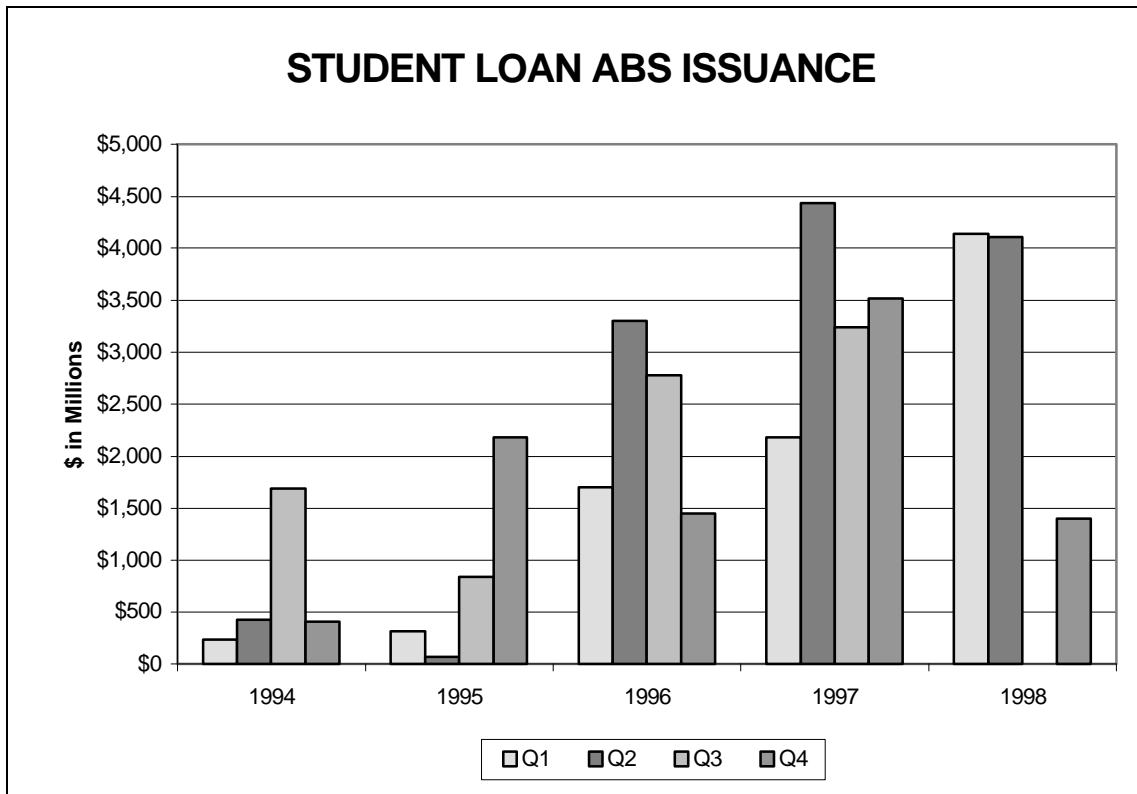
The market for floating-rate securities demonstrates the limited use of the 91-day T-bill as an index for private capital investments. A floating-rate security is a debt instrument whose interest rate paid to investors is reset periodically (weekly, monthly, quarterly, etc.) over the life of the security. The increased volatility of the TED spread and the reduced supply of 91-day T-bills has resulted in a striking change in the market for floating-rate securities indexed to the T-bill.

Investors in floating-rate securities typically expect the value of their securities to remain close to what they paid for them. The purchase price, as determined by the spread over the T-bill that is required by investors in the security, is particularly sensitive to the TED spread. During volatile market conditions and for an extended period thereafter, investors require a significant premium over the normal TED spread to protect against uncertainty. Under current market conditions, the spread required by investors to purchase T-bill-indexed securi-

ties has increased dramatically and the price at which investors can sell their existing T-bill securities has fallen, in certain cases, to substantially below the price paid for the securities at the time they were issued. This loss of principal value has discouraged floating-rate investors from purchasing additional T-bill-indexed securities, thereby reducing their liquidity.

Over the past five years, the asset-backed securities (ABS) market has become a major source of funding for student loan holders. Student loan ABS are debt securities issued by a trust whose primary asset is a portfolio of student loans. The interest payments from the student loans in the trust are used to make interest payments to investors who buy debt securities issued by the trust. However, since student loan ABS are largely indexed to the T-bill to match fund the portfolio, the increase in TED spread volatility severely limited student loan funding activity in the ABS market during the third and fourth quarters of 1998 (Chart 4).

Chart 4



In fact, there were no student loan ABS issued in the third quarter last year and the volume in the fourth quarter was down 60%, from \$3.5 billion in 1998 to \$1.4 billion in 1999. The ABS market is a good example of how the TED spread intro-

duces great uncertainty in the financing of student loan portfolios, which, over time and under the lower lender yields, could erode consistent investment in this program by the private sector.

Comparison of T-bill Markets to LIBOR/CP Markets

Generally speaking, the larger the size of a particular market, the greater the liquidity within that market. Both the LIBOR and CP markets, as well as the markets for debt and derivatives indexed to CP and LIBOR, have grown steadily over the past several years while the market for 91-day T-bills

has declined substantially. Table 1 illustrates that the size of the CP market dwarfs the U.S. government 91-day T-bill market. Total commercial paper includes borrowing of 270 days or less by the most credit-worthy, non-financial and certain financial institutions.

Table 1
COMMERCIAL PAPER and 91-DAY T-BILLS OUTSTANDING
(\$ in Billions)

<u>Year</u> <u>End</u>	<u>Commercial Paper *</u>		<u>91-day</u> <u>T-bills **</u>
	<u>Total</u>	<u>Financial</u>	
1995	\$687	\$497	\$174
1996	\$788	\$601	\$176
1997	\$967	\$766	\$96
1998	\$1,163	\$945	\$103

* Source: The Federal Reserve Board

** Source: Bloomberg—Treasury bills outstanding, originally auctioned as 91-day T-bills

The largest and most liquid market is comprised of debt and derivative instruments tied to the Eurodollar index (i.e., LIBOR). As an example, floating rate debt indexed to LIBOR has become the global funding and investing vehicle of choice. As shown in Table 2, since 1990, issuance of publicly reported floating-rate debt indexed to one-month or three-month LIBOR has exceeded that indexed to the 91-day T-bill by a 10-to-1 ratio.⁶ Further, the market for 91-day T-bill indexed debt should not be viewed as evidence of an index with access for a broad base of issuers. The T-bill

market is dominated by Government Sponsored Enterprise (GSE) issuance with a correspondingly limited number of investor types. In 1998, GSEs and Sallie Mae's non-GSE asset-backed trusts issued more than 90% of the \$22 billion floating-rate debt indexed to the 91-day T-bill. The market, exclusive of GSE's and Sallie Mae's ABS, has issued only \$24 billion in T-bill indexed securities since 1990 compared to \$1,155 billion of securities indexed to either the one-month or three-month LIBOR.

Table 2
PUBLICLY OFFERED FLOATING RATE DEBT
(\$ in Billions)

<u>Issued</u>	<u>1-month and 3-month LIBOR</u>	<u>91-day T-bill</u>	<u>GSE Issued * 91-day T-bill</u>
1990-1998	\$1,155	\$114	\$90
1998	\$227	\$22	\$20

* Includes Sallie Mae's non-GSE asset-backed trusts

Source: Securities Data Corporation

⁶ Table 2 reflects the publicly offered floating rate notes, which understates the extent to which LIBOR is used in financing private market activity. The chart does not include the sizable market for privately placed collateralized bond obligations and collateralized loan obligations as well as the extent to which LIBOR is used as a benchmark for general commercial lending.

Alternative Indices and Federal Credit Policy

The general policy for federal credit programs recommends that interest rates for programs where the government has some liability for the interest payments should be indexed to Treasury securities of comparable maturities. This “bookkeeping” policy, the Treasury’s equivalent of match funding, led to the provision in the 1993 reauthorization of the Higher Education Act that would have changed the student loan rate last year to the 10-year Treasury note plus 1.0%. As part of the HEA reauthorization last year, it was widely agreed that indexing FFELP loans to the longer-term Treasury security would be unworkable in the private credit markets and would have led to an exodus of lenders from the program. As a result, HEA reauthorization returned to the longstanding formula using the 91-day T-bill as an index for the student loan program.

The reason the 91-day T-bill was originally chosen as an index for lender yields in the student loan program in 1977 had little to do with match funding or even a prefer-

ence in credit policy for Treasury securities. As was stated earlier, the National Commission on Student Financial Assistance study found that the reasons the special allowance was changed to a formula based on the 91-day T-bill was because it was the lowest yielding debt instrument, the yield was determined by market forces, and that the rate was unambiguous and easily derived.

These criteria, when adjusted for the student loan spread to the index, are easily met by today’s private credit market instruments, such as LIBOR or commercial paper. Further, when the lender yield was originally indexed to the 91-day T-bill, there were less than \$6 billion in outstanding student loans. Today, there are close to \$150 billion in outstanding student loans that have been financed from the private credit markets, making the T-bill index, with auction sizes of only \$6-8 billion over the last year, of far greater concern, particularly in light of the recent reductions in student loan yields.

Some have suggested that it is inappropriate for the private sector to transfer the T-bill basis risk of student loans to the federal government simply because the government should not bear any basis risk. However, while the TED spread volatility introduces uncertainty into the student loan market and the resulting basis risk imposes a significant cost to lenders, this does not translate into additional costs to the federal government.

First, the federal government does not match fund its obligations in the way that private lenders do—it's debt issuance is related to the daily management of its overall cash needs, which are influenced by a variety of factors entirely separate from its cost of funds. The federal government enters many fixed obligations, for entitlement programs and contracts, where the payment commitments are influenced by substantially different factors. Under many federal direct loan and guarantee programs, interest rate terms are extended on a fixed-rate basis. Since the government's fixed-rate loan commitments are generally longer term than their borrowing terms, the federal budget is subject to a significant amount of interest rate risk. For much of the history of student loan program, the government has absorbed substantial basis risk. As the table in Appendix 1 shows, from 1969 to 1992, student interest rates were set at fixed rates for the life of the loan, either 7%, 8%, or 9%, depending on the timing of the loan. From 1977, when the special allowance formula was changed to the 91-day T-bill formula, to 1992, the government absorbed all of the interest rate fluctuations above the student rate, far more substantial than the basis risk that is being discussed here.

Additionally, government project commitments are generally longer in term than the liabilities funding them. Recently, this strat-

egy has benefited the taxpayer as the greater-than-expected drop in interest rates over the past few years has caused an unexpected drop in interest payments on the national debt. Based on CBO's January 1998 baseline budget estimate and forecasted 1998 rates, approximately \$2 billion in budget savings for the fiscal year can be attributed to the lower-than-forecasted interest rates that actually occurred. If the recent additional drop in rates is sustained, budget savings over the baseline forecast should reach \$7 billion in 1999 and \$12 billion in 2000.

Second, while basing lender yields on a different index than student rates could introduce more volatility into the federal government's special allowance commitments, overtime these payments should be the same as would have resulted under the old formula. The federal government payments to lenders would vary with the TED spread since the student rate would remain based on the 91-day T-bill. This would mean that in some years, when the TED spread widens, the special allowance payments would be higher while in other years, when the TED spread narrows, the payments would be less. However, as long as the spread over a CP or LIBOR index is determined in an appropriate manner, the cost to the federal government should be the same over the budget horizon.

In moving from the current special allowance formula to a new private-market based formula, choosing the appropriate adjustment to the yield would be essential in assuring the costs to the taxpayer did not increase. Appendix 3 displays the historical spreads between the government issued 91-day T-bill rates and certain private market LIBOR and CP rates. In choosing the appropriate spread to adjust the special allow-

ance formula, consideration should be given to the factors influencing the markets. For example, LIBOR has greatly improved and stabilized as an index since 1989 when the Bank for International Settlements risk-based capital requirements were established that greatly improved credit quality of banks. Further, while this paper has focused mostly on 3-month LIBOR, there are several private market indices that could be used in determining lender yield, including 30-day and 90-day commercial paper and 1-month LIBOR since private market indices are more highly correlated to each other than to 91-day T-bill.

By choosing a private market-based index, such as LIBOR or CP, the federal government would achieve the important policy goal of providing more predictability and certainty into the private market for student loans. This greater certainty can assure that students and taxpayers will continue to enjoy the benefits that the private markets bring to the student loan program, without interruption from factors—such as global events—that have little to do with the student loan market itself.

Summary

The relatively unstable relationship between T-bill rates and student loan providers' funding costs can have a devastating impact on FFELP participants' abilities to match fund their portfolios. A change in the index on which student loan returns are based from the 91-day T-bill to either 30-day CP, 90-day CP, 1-month LIBOR or 3-month LIBOR would provide private sector lenders with the proper incentives to continue participation and investment in the FFELP. A more efficient index could ensure that private capital for student loans will be available not just in good economic times but also in times of economic stress, when needs are the greatest.

The rate index used to determine lender returns on FFELP loans, based on the 91-

day T-bill, is not sufficiently correlated to lender funding rates to assure stability in the program under the new yield formula put in place in 1998. By switching to a market-based index and eliminating the unnecessary capital markets inefficiencies that accompany the legacy T-bill index, predictability and certainty in the FFELP program can be enjoyed at no cost to students, schools, or taxpayers. The more stable and predictable matched funding associated with an efficient market-based index will encourage lenders to remain in the program and take a long-term view when considering investments to maintain and improve the infrastructure of this student loan program.

Appendix 1

DATE	STUDENT RATE		LENDER YIELD
	INTEREST RATE	MAXIMUM RATE	
8/1/69 – 9/30/77	7%	---	Maximum of 10% Determined quarterly by committee ¹
10/1/77 – 5/31/78	7%	---	91-day T-bill plus 3.5%; rounded to nearest 1/8 th ; capped at 5% over student rate
6/1/78 – 8/31/81	7%	---	91-day T-bill plus 3.5%; rounded to nearest 1/8 th
9/1/81 – 9/12/83	9%	---	91-day T-bill plus 3.5% ²
9/13/83 – 10/16/86	8%	---	91-day T-bill plus 3.5%
10/17/86 – 6/30/88	8%	---	91-day T-bill plus 3.25%
7/1/88 – 9/30/92 For these loans, starting after 9/30/92	8% 8% for first 48 months, then interest rate set at 91-day T-bill plus 3.25%	--- 8% for first 48 months, then 10%	91-day T-bill plus 3.25% Same
10/1/92-6/30/94	91-day T-bill plus 3.1%	9%	91-day T-bill plus 3.1%
7/1/94 – 6/30/95	91-day T-bill plus 3.1%	8.25%	91-day T-bill plus 3.1%
7/1/95 – 6/30/98	91-day T-bill plus 2.5% in school, grace, or deferment; 3.1% in repayment	8.25%	91-day T-bill plus 2.5% in school, grace, or defer- ment; 3.1% in repayment
7/1/98 – current	91-day T-bill plus 1.7% in school, grace, or deferment; 2.3% in repayment	8.25%	91-day T-bill plus 2.2% in school, grace, or defer- ment; 2.8% in repayment

¹Committee composed of the Secretary of Health, Education, and Welfare, the Secretary of Treasury, and the Director of Office of Management and Budget

² Rounding to nearest 1/8th eliminated for loans made after 10/1/81

Appendix 2

Congressional Budget Office FFELP Profitability Analysis

Expected After-Tax Rate of Return on Equity From FFELP Loans to Students Entering a Four-Year School in the Fall of 1998

	Prior Formula		Current Formula	
	T-bill + 2.5% in-school		T-bill + 2.2% in-school	
	T-bill + 3.1% repayment		T-bill + 2.8% repayment	
	At 5%	At 1.75%	At 5%	At 1.75%
	<u>Capital</u>	<u>Capital</u>	<u>Capital</u>	<u>Capital</u>
After-Tax ROE	18%	26%	13%	17%

Note:

For details see the Congressional Budget Office "The Profitability of Federally Guaranteed Student Loans", March 30, 1998 and Addendum to "The Profitability of Federally Guaranteed Student Loans", an attachment to a letter to Senator Pete V. Domenici, March 20, 1998.

After-Tax Return to Lenders on Each \$1 of Loans Held Based on the Above CBO Analysis

	Prior Formula		Current Formula	
	T-bill + 2.5% in-school		T-bill + 2.2% in-school	
	T-bill + 3.1% repayment		T-bill + 2.8% repayment	
	At 5%	At 1.75%	At 5%	At 1.75%
	<u>Capital</u>	<u>Capital</u>	<u>Capital</u>	<u>Capital</u>
Capital	5%	1.75%	5%	1.75%
x After-Tax ROE	18%	26%	13%	17%
= Return on Assets	0.9%	0.5%	0.7%	0.3%
Return on Each \$1 of Loans Held	\$ 0.009	\$ 0.005	\$ 0.007	\$ 0.003

Appendix 3

STATISTICAL ANALYSIS TO 91-DAY T-BILLS (B.E.) (a)

As of December 31, 1998

INDEX	From 1980	From 1985	From 1990	From 1995	1998
<u>FINANCIAL COMMERCIAL PAPER (b)</u>					
30 Day					
Average Spread	0.369%	0.341%	0.231%	0.339%	0.617%
Max Spread	3.848%	1.920%	1.584%	1.584%	1.584%
Min Spread	-1.401%	-0.356%	-0.356%	-0.258%	0.283%
Standard Deviation	0.434%	0.300%	0.240%	0.248%	0.258%
90 Day					
Average Spread	0.278%	0.355%	0.285%	0.369%	0.616%
Max Spread	2.268%	2.042%	1.525%	1.525%	1.525%
Min Spread	-2.453%	-0.344%	-0.102%	-0.009%	0.293%
Standard Deviation	0.389%	0.271%	0.202%	0.220%	0.218%
<u>LIBOR (c)</u>					
30 Day					
Average Spread	0.869%	0.604%	0.421%	0.514%	0.744%
Max Spread	7.657%	2.881%	2.582%	1.649%	1.649%
Min Spread	-0.151%	-0.151%	-0.151%	-0.060%	0.401%
Standard Deviation	0.809%	0.390%	0.272%	0.229%	0.263%
90 Day					
Average Spread	0.991%	0.690%	0.507%	0.569%	0.733%
Max Spread	5.229%	2.948%	1.695%	1.641%	1.641%
Min Spread	0.145%	0.145%	0.145%	0.277%	0.415%
Standard Deviation	0.765%	0.368%	0.207%	0.180%	0.214%

Sources

(a) - B.E.-Bond Equivalent; Federal Reserve Statistical Release, H(15). Treasury Bill Constant Maturity.

(b) - Federal Reserve Statistical Release, H(15). Adjusted prior to 9/1/97 based on the swap spread change of 7 basis points that occurred after new index was implemented.

Converted to a bond equivalent basis.

(c) - British Bankers Association official LIBOR fixing (Actual/360 Day Basis).

Converted to a bond equivalent basis.

Glossary

Asset-Backed Securities (ABS): Asset-backed securities are debt securities collateralized by the cash flow from a pool of loan obligations such as credit cards, auto loans, student loans and other types of consumer loans. The loans are transferred from the institution that owns the loans to a trust which must be bankruptcy remote from that institution. The trust then issues the securities to the investors.

Basis Risk: Refers to the risk that changes in the interest rate on liabilities (debt) will not correspond with changes in the interest rate on the assets being funded with those liabilities creating an asset/liability mismatch.

Bank for International Settlements (BIS): The BIS is an international organization that acts as a bank for central banks of major industrial countries. The BIS has been a major force in the implementation of risk-based capital standards for banks.

Commercial Paper (CP): Commercial Paper issuances are short-term, unsecured loans issued by highly creditworthy com-

mercial firms and financial institutions, with maturities of 2 days to 270 days. The most active market is in issues under 30 days.

Consolidation: Refinancing multiple education loans into one new loan with a new repayment term, interest rate and payment amount.

Deferment: A period when a borrower, who meets certain criteria, may suspend loan payments. For some loans the federal government pays the interest during a deferment. On others, the interest accrues and is capitalized, and the borrower is responsible for paying it.

Derivatives: Financial contracts whose value is determined from publicly traded securities, interest rates, currency exchange rates, or market indexes. They are often used to protect assets against changes in value (hedging). Some examples of derivative contracts include financial futures, stock options and interest rate and currency swaps.

Eurodollars: Are U.S. dollar denominated deposits in banks or bank branches outside the United States.

Federal Family Education Loan Program (FFELP): The FFELP, formerly the Guaranteed Student Loan Program, was established under the Omnibus Budget Reconciliation Act of 1993 as the new name for the private-capital based student loan program. The new FFELP name was created to distinguish the private-capital program from the newly established Federal Direct Student Loan Program.

Forbearance: Temporary adjustment to repayment schedule for cases of financial hardship.

Government Sponsored Entity (GSE): Established by acts of Congress, GSEs are “for-profit” institutions operating in the private sector capital markets with a mandate to carry out public policy. Institutions established as GSEs include Sallie Mae, Fannie Mae and Freddie Mac.

Grace Period: Specified period of time between when a student graduates or drops below half-time status and the time loan payments are scheduled to begin.

Hedging: Financial techniques used to offset the risk of loss from price/interest fluctuations in the market.

Higher Education Act of 1965 (the Act): The Act established a framework for a federally guaranteed student loan program. Approximately every five years, Congress updates the Act to incorporate changes recommended by various interested parties, including Congress, the Administration, lenders, schools and students.

Higher Education Act Reauthorization of 1998: The most recent reauthorization of the Higher Education Act of 1965, signed by the President in October 1998.

Interest Rate Risk: Risk that an interest-earning asset, such as a loan, will decline in value as interest rates change. The thrift crisis of the early 1980s is a good example of interest rate risk. By funding long-term, fixed-rate mortgages with short-term deposits, thrifts were subject to interest rate risk as rates rose sharply causing the value of their mortgages to fall and the cost of their short-term funding to rise.

London Interbank Offered Rate (LIBOR): LIBOR is the rate at which major international banks are willing to lend U. S. dollars to each other. LIBOR is a series of composite rates, based on daily quotes from several leading banks, which are fixed rates quoted for specific maturities.

Risk-Based Capital Guidelines: Risk-based capital guidelines were established by international bank regulators to take into account capital reserves for loans, investments, and certain other items off the balance sheet when measuring a bank’s financial strength. In general, assets with higher risk require more capital in reserve than low-risk assets.

Risk-free: A risk-free rate is the return associated with holding a security void of any possible loss due to default or price change. The rate of a U.S. Treasury security held to maturity, including the 91-day T-bill, is often referred to as a risk-free rate or return.

Secondary Market: A market where existing loans are sold to new investors, either directly or through an intermediary. Student loans are originated by lenders in the “primary market,” and Sallie Mae and others

buy certain of these loans from the originators in the secondary market.

Short-term: Refers to a security with a maturity of less than one year.

Special Allowance Payments (SAP): The Department of Education makes quarterly SAP to holders of student loans to the extent necessary to ensure that the holder receives a minimum contractual interest rate of return on such loans. The SAP is primarily comprised of the difference between what the borrower pays on the loan and what the holder is entitled to receive.

Volatility: The measure of the dispersion or variance of observations around the mean (average) of a set of observations. Standard deviation and volatility are often used interchangeably.

91-Day Treasury Bill (91-day T-bill): The shortest-term, regularly offered, U.S. Treasury debt securities, having a maturity of 13 weeks. The weekly rate is determined when the Treasury auctions the 91-day T-bills, typically on the first business day of the week.